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I CLAIM:

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A process for reducing acrylamide production in a cooked, starch based processed food which comprises:

5 (a) fermenting the processed food before cooking in an agitated aqueous medium with a microorganism used for food fermentations so as to ferment sugars in the food sufficiently to reduce the acrylamide production upon cooking; and

10 (b) cooking the food, wherein the fermented and cooked food contains less acrylamide than without the fermentation.

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The process of Claim 1 wherein the aqueous medium comprises an added sugar.

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The process of Claim 1 wherein the aqueous medium comprises an added amino acid source.

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The process of any one of Claims 1, 2 or 3 wherein the aqueous medium is at a temperature between about 10 and 40°C.

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The process of any one of Claims 1, 2 or 3 wherein a pH of the aqueous medium is between 4 and 8 during the fermentation.

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The process of any one of Claims 1, 2 or 3 wherein the food is fried.

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The process of any one of Claims 1, 2 or 3 wherein the food is baked in an oven.

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The process of Claim 1 wherein the food is selected from the group consisting of potato chips, tortilla chips, pretzels, crackers, baked goods, fried breads, processed cereals and French fries.

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The process of Claim 1 wherein the aqueous medium is in a reaction vessel and the aqueous medium is recirculated into and out of the vessel while retaining the food in the vessel.

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The process of any one of Claims 1, 2 or 3, wherein the microorganism is a yeast.

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The process of any one of Claims 1, 2 or 3 wherein the microorganism is a bacterium.

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The process of any one of Claims 1, 2 or 3 wherein the microorganism is a lactic acid producing microorganism.

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The process of Claim 1 wherein the microorganisms are recycled between batches of the food which are processed.

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The process of Claim 1 wherein prior to fermenting a pH of the aqueous medium is adjusted to reduce the acrylamide production.

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The process of Claim 1 wherein the food is washed with water prior to the cooking to remove residues of the fermentation.

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The process of Claim 1 wherein at the end of the fermenting the aqueous medium has a pH between about 4 and 5.

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The process of Claim 1 wherein the food is dried after the fermentation and before the cooking.

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The process of Claim 1 wherein water the aqueous medium is distilled or otherwise purified.